

REMARKS

Status of the Claims

Upon entry of the amendment above, claims 1-16 and 18-78 will be pending, claims 1, 8, 15, 46, 50, 64, 68, 75, and 76 being independent.

Summary of the Office Action

Claims 15, 16, 18-28, 30, 33-35, 37-41, 43, 45-52, 54, 61-63, and 70-73 are allowed (of which claims 15, 46, and 50, are independent); claims 3, 4, 8, 36, 42, 58, 68, 74, and 75 are allowable but are objected to for depending from rejected claims.

Claims 1, 2, 5-7, 14, 29, 31, 32, 44, 53, 55-57, 59, 60, and 69 are rejected under 35 USC §103(a) as being unpatentable over WOJCIK (U.S. Patent No. 5,807,152) in view of GUSDORF et al. (U.S. Patent No. 3,742,870, hereafter “GUSDORF”).

Claims 9-13 and 69 are rejected under 35 USC §103(a) as being unpatentable over WOJCIK in view of GUSDORF and BREISCH (U.S. Patent No. 4,014,405).

Claims 64-67 are rejected under 35 USC §103(a) as being unpatentable over PACCORET et al. (U.S. Patent No. 4,964,825, hereafter “PACCORET”).

Response to the Office Action

A. Allowed and Allowable Claims

Although Applicants respectfully request that the Examiner consider their position, advanced below, regarding the three outstanding grounds of rejection, they are grateful for the Examiner’s indication of allowability in many of the pending claims.

Three of the allowable dependent claims, viz., claims 8, 68, and 75, have been rewritten in independent form above. These three claims, as well as others of the allowed/allowable claims, are fully supported by the disclosure of the parent application.

B. Withdrawal of Rejections Based at least upon WOJCIK in view of GUSDORF

Reconsideration and withdrawal of the rejection of claims 1, 2, 5-7, 14, 29, 31, 32, 44, 53, 55-57, 59, 60, and 69 as being unpatentable over WOJCIK in view of GUSDORF is kindly requested. Also, reconsideration and withdrawal of the rejection of claims 9, 10-13, and 69 as

being unpatentable over WOJCIK in view of GUSDORF and BREISCH is also requested.

In these two grounds of rejection, it is the Examiner's position that it would have been obvious to have used a polystyrene plastic foam of GUSDORF for the partition and upper shell of the surfboard of WOJCIK.

Applicants respectfully disagree.

First, dependent claim 69 – which is rejected over the combination of WOJCIK and GUSDORF – calls for the longitudinal partition (see parent claim 1) to be made of a foam *different* from the foam of the sheet of foam of the upper half shell (see claim 1). Accordingly, Applicants submit that the combination fails to meet the terms of claim 69.

Apparently related to the subject matter of claim 69, the first full paragraph on page 4 of the Office action maintains that because WOJCIK discloses the use of "different" materials for manufacturing the shells and core of his surfboard, it would have been obvious to manufacture a core of a material different from the material of the shells. Applicants submit that there is no evidence that this would have been done or that it would have been obvious that it would have been done. The purported motivation for doing this, which is not a teaching of WOJCIK, is that one could realize a characteristic in the partition that is different from that of the shell. Such a conclusion, of course, is one of a classic hindsight analysis of an invention. It is Applicants who have advanced an advantage to produce a board having a partition with a different characteristic from that of the upper shell, i.e., for enhancing the characteristics of the board. If it were not for Applicants' disclosed invention, the public would not have been in possession of the hypothetical feature of WOJCIK upon which the instant rejection is premised.

New independent claim 78 includes the subject matter of independent claim 1 and the subject matter of claim 69, which is believed to be allowable over WOJCIK and GUSDORF at least for the reason given above.

Second and, perhaps, most important, is that, in independent claim 1, Applicants call for a *sheet* of foam. WOJCIK uses sheets of plastic (such as ABS) which he shapes by using thermo-vacuum forming techniques. By contrast, the "foam" used by GUSDORF is not a *sheet* of foam,

as Applicants specify in independent claim 1, but a polystyrene that is injected into a mold in an injection molding process together with a foaming agent. Accordingly, one skilled in the art of would *not* be taught by GUSDORF to use polystyrene foam to make the WOJCIK surfboard. According to GUSDORF, a plastic foam is not realized until the molded part is removed from the mold; by contrast, in WOJCIK, the ABS plastic sheet is used in a thermo-forming process by starting with a plastic sheet.

In view of the foregoing, reconsideration and withdrawal of the rejections based upon WOJCIK and GUSDORF are kindly requested.

C. Withdrawal of Rejection Based Upon WOJCIK in view of GUSDORF and BREISCH

With regard to the combination of WOJCIK, GUSDORF, and BREISCH, Applicants additionally request reconsideration and withdrawal of the rejection of claims 9-13 and 69.

Like GUSDORF, BREISCH teaches the use of a plastic that is injected in an injection molding process with a foaming agent. Although polypropylene is disclosed, BREISCH would not suggest its use in a thermo-forming process like that of WOJCIK, in which plastic foam sheets are utilized, as explained above in connection with the combination of WOJCIK and GUSDORF.

Lastly, Applicants note that the products disclosed by GUSDORF and BREISCH, i.e., furniture and sawhorses, respectively, are dissimilar to the surfboard of WOJCIK, thereby providing an additional reason for one skilled in the art not to have relied upon the teachings of GUSDORF and/or BREISCH in considering a modification of WOJCIK.

D. Withdrawal of Rejection Based Upon PACCORET

Applicants kindly request that the rejection of independent claim 64 and dependent claims 65-67 under 35 USC §103(a), as being unpatentable over PACCORET et al. (U.S. Patent No. 4,964,825), be reconsidered and withdrawn.

Independent claim 64 includes every limitation that appears in claim 23 of the patent that issued from the parent application (i.e., US 6,736,689). In addition, claim 64 calls for the partition, within the hollow inner shell to be made of a material *different from* the thermoformed extruded polystyrene foam of the casing.

In the parent application, the only independent claim in the final Office action prior to allowance was a rejection of application claim 41 (i.e., corresponding to patent claim 23), based primarily upon PACCORET. Following Applicants' arguments advanced in their reply filed on November 26, 2003, the rejection was withdrawn.

The rejection to which Applicants here respond includes the statement that the partition 14 of PACCORET (see Figs. 5, 9, and 10) is made of a material that is different from the material of the casing (elements 24, 24'). Applicants have found no mention in PACCORET's description that the partition 14 is made of a material different from that of the casings 24, 24'.

In fact, and contrary to that statement, Applicants submit that column 5, lines 45-48, of PACCORET explains that the partition (web) 14 is "formed with a sandwich construction similar to that of the upper and lower board sections," which Applicants submit refers to the constructions that include the casings 24, 24'. Accordingly, it would appear that the rejection is in error in this regard or, at a minimum, relies upon speculation not suggested or taught by PACCORET.

Independent claim 64 calls for the casing of Applicants' aquatic gliding board (*i.e.*, the casing between a hollow inner shell and an outer shell) to comprise a *thermoformed* layer of *extruded* polystyrene foam.

PACCORET discloses an aquatic gliding board, *i.e.*, a gliding board, such as a sail board or surfboard. A sandwich structure is prepared, with inner and outer layers in place, from which the board is then assembled. The Examiner explains in his rejection that, in Fig. 1, PACCORET illustrates an inner shell formed by inner skins 22, 22'; an outer shell formed by skins 20, 20'; and a core/casing 24' between the inner and outer shells.

In column 4, lines 57-65, PACCORET describes the preferred embodiment in which a polyvinyl foam is used. Incidentally, PACCORET describes that polyvinyl foam is used *only for the bottom section* of the board. In fact, PACCORET is quite specific in his reason for this asymmetrical use of materials. That is, in lines 63-65, PACCORET explains that "[t]his [Diab Barracuda type HT-70 polyvinyl foam] is a closed cell foam that has a very low rate of water absorption in case the board is punctured."

By contrast, Applicants have already explained (see paragraph 0009) that polystyrene foams have the disadvantage of "taking on water" in the event that the outer shell of the board were to be damaged, *i.e.*, the risk of water penetration, whereby the board could be weighed down and the water would be difficult to evacuate from the foam.

Therefore, Applicants submit that one skilled in the art, when considering the invention as a whole, including the specific comment made by PACCORET that polyvinyl foam is to be used because it has a very low rate of water absorption in case the board were to be punctured, would not likely be led to substitute a foam that would be more water absorbent.

With regard to the comment at the bottom of page 7 of the Office action, Applicants submit that it is PACCORET itself, not Applicants, who has explained that polyvinyl foam is favored because of its very low rate of water absorption. That is, this comment is that of PACCORET; not speculation by Applicants. Further, it is Applicants' specification, which was prepared prior to any consideration of any rejection based upon PACCORET, which explains (in paragraph 0009) that polystyrene is not favored because of its "flaw of taking in water." It is not Applicants' position that polystyrene foam has an absorption rate that is too high to be used in casing 24' of PACCORET; it is Applicants' position that, in view of the disadvantage known regarding polystyrene that one skilled in the art would not have been motivated to have made the substitution alleged in the rejection as having been obvious to have modified PACCORET.

At least for the foregoing reasons, Applicants request that the rejection of claims 64-67 on the basis of PACCORET be reconsidered and withdrawn.

E. New Claims 76-78

New claims 76-78 are presented above.

New claim 76 depends from claim 1 and specifies "no foam comprised of foam identical to said foam of said partition extends transversely beyond said partition." The subject matter of claim 76 is depicted, for example, in Fig. 14, whereby the foam of the partition 11 differs from the foam of the casing and clearly does not extend beyond the boundary of that which is the partition 11.

By contrast, the double-walled partition 84a, 84b of WOJCIK (and similar partitions 80a, 80b and 82a, 82b, as shown in Fig. 20) are part of a core 72. As such, the material of which the core – and the partitions – is made extends transversely between partitions, i.e., throughout the width of the board, including along support surfaces 86, 80, 82. In this regard, see the description of WOJCIK, beginning at column 6, line 51.

New claim 77 limits the longitudinal partition to a “single-wall partition.” By contrast, as mentioned above, the partition 84a, 84b of WOJCIK (identified as such five lines from the bottom of the page 2 of the Office action) is a *double-walled* partition. The double-wall feature would appear to be a characteristic of WOJCIK’s thermo-forming process.

New independent claim 78 includes the subject matter of independent claim 1 and the subject matter of claim 69, which is believed to be allowable over WOJCIK and GUSDORF at least for the reason given above.

SUMMARY AND CONCLUSION

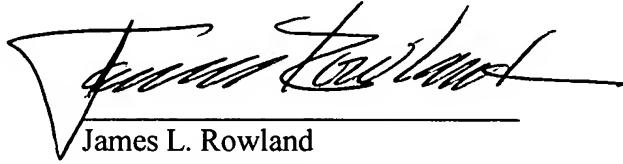
The grounds of rejection advanced in the Office action have been addressed and are believed to be overcome. Reconsideration and allowance are respectfully requested in view of the amendment and remarks above.

Payment accompanies this reply of claim fees and a fee for a two-month extension of time. No additional fee is believed to be due at this time. However, the Commissioner is authorized to charge any fee required for acceptance of this reply as timely and/or complete to Deposit Account No. 19-0089.

Further, although an extension of time for two months is believed to be necessary at this time, if it were to be found that an additional extension of time were necessary to render this reply timely and/or complete, Applicants request an extension of time under 37 CFR §1.136(a) in the necessary increment(s) of month(s) to render this reply timely and/or complete and the Commissioner is authorized to charge any necessary extension of time fee under 37 CFR §1.17 to Deposit Account No. 19-0089.

Any questions regarding the instant application can be directed to Applicants' undersigned representative at the telephone number, fax number, or e-mail address given below.

Respectfully submitted,
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